

LISTING OF CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. through 10. (Cancelled).

11. (New) A hydrodynamic coupling comprising:

a primary impeller;

a secondary impeller, said primary and secondary impellers forming a toroidal working chamber;

a drive shaft driving said primary impeller, said drive shaft having a first end, a second end, a central axis, and a prespecified segment between said first and second ends;

at least one supply channel for introducing a working medium to said toroidal working chamber, said at least one supply channel being formed in said drive shaft at said central axis along said prespecified segment; and

a plurality of evacuation channels for evacuating said working medium from said toroidal working chamber, said plurality of evacuation channels being formed in said drive shaft radially about said at least one supply channel, said plurality of evacuation channels being formed from said first end up to at least said second end, said first end being located a predetermined distance from said toroidal working chamber.

12. (New) The hydrodynamic coupling of claim 11, wherein said primary impeller is on said drive shaft or is formed as a part of said drive shaft.
13. (New) The hydrodynamic coupling of claim 11, wherein said plurality of evacuation channels open into said toroidal working chamber in a region of an outer circumference of said toroidal working chamber, wherein said at least one supply channel opens into said toroidal working chamber in a region of an intermediate circumference of said toroidal working chamber, said region of an intermediate circumference being between a region of an inner circumference and said region of an outer circumference of said toroidal working chamber.
14. (New) The hydrodynamic coupling of claim 13, wherein each of said plurality of evacuation channels and said at least one supply channel comprise an inlet opening.
15. (New) The hydrodynamic coupling of claim 11, wherein said primary and secondary impellers are mounted on said drive shaft in a floating manner.
16. (New) The hydrodynamic coupling of claim 11, wherein said primary impeller can be mechanically locked against rotation so that the hydrodynamic coupling exercises the function of a retarder when said secondary impeller is driven.
17. (New) The hydrodynamic coupling of claim 11, wherein at least one of said plurality of evacuation channels opens tangentially opposite a flow direction of said working medium, wherein said primary impeller is mechanically locked against rotation, and wherein said at least one of said plurality of evacuation channels has a section formed in said primary impeller in an axis-parallel manner relative to an axis of rotation of the hydrodynamic coupling.

18. (New) The hydrodynamic coupling of claim 11, further comprising:

a module located at an end of said driveshaft, said module comprising an inner channel and an outer channel, said inner channel for said working medium, said inner channel being connected to said at least one supply channel in a flow-conducting manner, said outer channel for said working medium, said outer channel surrounds said inner channel, said outer channel being shaped as an annular gap in cross section, said outer channel being connected in a flow-conducting manner with at least one of said plurality of evacuation channels.

19. (New) The hydrodynamic coupling of claim 18, wherein said inner channel is shaped as an annular gap in cross section.

20. (New) A drive train comprising:

an internal combustion engine driving a crankshaft;

an exhaust gas turbine disposed in a flow of exhaust from said internal combustion engine, said exhaust gas turbine being connected with said crankshaft; and

a hydrodynamic coupling disposed between said exhaust gas turbine and said crankshaft, said hydrodynamic coupling comprising:

a primary impeller and a secondary impeller forming a toroidal working chamber;

a drive shaft driving said primary impeller, said drive shaft having a first end, a second end, a central axis, and a prespecified segment between said first and second ends;

at least one supply channel for introducing a working medium to said toroidal working chamber, said at least one supply channel being formed in said drive shaft at said central axis along said prespecified segment; and

a plurality of evacuation channels for evacuating said working medium from said toroidal working chamber, said plurality of evacuation channels being formed in said drive shaft radially about said at least one supply channel, said plurality of evacuation channels being formed from said first end up to at least said second end, said first end being located a predetermined distance from said toroidal working chamber.

21. (New) The drive train according to claim 20, wherein said primary impeller can be mechanically locked against rotation so that said hydrodynamic coupling brakes said crankshaft hydrodynamically.